

Department of Veterans Affairs  
Decentralized Hospital Computer Program

# **INCOME VERIFICATION MATCH (IVM) INSTALLATION GUIDE**

Version 2.0

October 1994

Information Systems Center  
Albany, New York

# Table of Contents

Introduction.....	1
Package Integration.....	2
Pre-Installation Checklist.....	3
Installation Instructions.....	4
Routine List.....	7
Sample Installation.....	8
Resource Requirements .....	12

# Introduction

This package contains all of the routines, files, and options necessary to support the Means Test verification process in conjunction with the IVM Center. Also included in this package are all required modifications to Patient Information Management System (PIMS) and Integrated Billing (IB) that are necessary to install IVM V. 2.0.

The installation process for IVM V. 2.0 is simple and straightforward. The install should proceed quickly and there are no special jobs that need to be run in conjunction with the installation. The post-init routine contains one conversion, where all entries in the ANNUAL MEANS TEST (#408.31) file are updated with two additional fields. Even with this on-line conversion, installation times are not expected to exceed 30 minutes.

Similar to IVM V. 1.0, the user will be required in the pre-init to indicate whether the installation is occurring in the test or production account. The installation will update all of the necessary tables and parameters required to configure the software to exchange a host of unsolicited messages and queries, via Health Level 7 (HL7), with the IVM Center.

# Package Integration

The following DHCP package versions (or higher) MUST be installed PRIOR to loading this version of IVM.

Kernel	V. 7.1
VA FileMan	V. 20.0
PIMS	V. 5.3
Integrated Billing	V. 2.0
OERR	V. 2.5
HL7	V. 1.5

This package was created with Kernel V. 7.1 and VA FileMan V. 20.0. The IVMNTEG routine was created using the Kernel Tool Kit V. 7.2 XTSUMBLD utility.

The informational patch DG\*5.3\*33 describes all of the changes to PIMS required to run IVM V. 2.0. Please note that all of the required PIMS routines are explicitly exported with this version (that is, they are not bundled in routines of another namespace and unbundled during installation) and are listed in the Routine List section of this document. These routines are all in the DG\* and VAFHL\* namespaces.

Please note that the IB patch, IB\*2\*6, is required to be installed prior to the installation of IVM V. 2.0. The informational patch, IB\*2\*15, describes all of the changes to IB required for IVM. The IB routines, which are in the IB\* namespace, are also explicitly exported and listed in the Routine List section.

The IVM domain must be properly installed, as instructed in the FORUM patches XM\*DBA\*51, XM\*DBA\*52, and XM\*DBA\*60, in order to install IVM V. 2.0. This domain should have been established when IVM V. 1.0 was installed.

# Pre-Installation Checklist

- ☐ 1. Have you loaded this package into your test account?
- ☐ 2. Have you reviewed the list of packages in the Package Integration section that are required for installation of IVM and confirmed that each one has been installed?
- ☐ 3. Have you installed IB\*2\*6?
- ☐ 4. Do you have any tasked jobs or other system processes that need to be shut down or rescheduled?
- ☐ 5. Have you scheduled downtime with your users? You should schedule approximately 1 hour to install this package. Note that you may bring users on-line immediately after the installation has completed.

Please note that you may consider installing this software with only your PIMS, IB, and Outpatient Pharmacy users logged off the system. Please refer to the discussion in Step 1 of the Installation Instructions.

- ☐ 6. Have you scheduled an unattended backup prior to beginning the installation?
- ☐ 7. Have you read the complete Installation Instructions?
- ☐ 8. Have you coordinated the installation of this package with the respective services in your facility? These services might include MAS, Fiscal, and MCCR.
- ☐ 9. Please note that this version of IVM has on-line options. Have you reviewed which menus you wish to assign to your users?

# Installation Instructions

Please read all instructions carefully before beginning the installation.

Step	Description
------	-------------

- |                             |                          |
|-----------------------------|--------------------------|
| <input type="checkbox"/> 1. | Get users off system(s). |
|-----------------------------|--------------------------|

It is recommended that all users are off the system during the installation due to the high degree of integration with PIMS and IB. Several changes to the PIMS Means Test module are released with this version of IVM, and cross-reference routines for files in both PIMS and IB will be recompiled. Use of PIMS or IB, or any package which invokes either of these packages, may cause an error or result in corrupt or incomplete file entries. If you choose to run this installation with users on the system, you must be assured that all Registration users are inactivated, and that activity in Medical Care Cost Recovery (MCCR) and Outpatient Pharmacy are minimized.

- |                             |   |
|-----------------------------|---|
| <input type="checkbox"/> 2. | Backup system(s).   |
| <input type="checkbox"/> 3. | Disable Routine Mapping (DSM) on all systems.   |
| <input type="checkbox"/> 4. | The global DGMT will become very active during the post-init conversion, as each entry in the ANNUAL MEANS TEST (#408.31) file will be updated. You may choose to disable journalling on that global.                                     |
| <input type="checkbox"/> 5. | Sign into the UCI where the package is to be installed. It is suggested that MSM sites run the install on the print server. Use a partition of 16K for DSM or a partition of 40K for MSM.   |
| <input type="checkbox"/> 6. | This package contains routines in the IVM*, DG*, VAFHL*, and IB* namespaces. Load the routines from the available media. See the Routine List section for a list of the distributed routines.   |
| <input type="checkbox"/> 7. | Verify that the variables DUZ, DT, DTIME, and U are defined and that DUZ(0)="@". The DUZ variable must be defined as an active user number and the DUZ(0) variable must be set to "@" before you will be allowed to run the installation. |

- ❑ 8. D ^IVMINIT to begin the installation. Follow the sample installation in this guide.

The pre-installation routine will check the current environment. You must also indicate whether the package is being installed in the test or production account. Please answer this question carefully.

Seven IVM files will be installed along with one file from IB and four files from PIMS. Four of the IVM files and one of the PIMS files (#408.34) are new files. Options in both the IVM and IB packages will be installed.

- ❑ 9. The post initialization routine will accomplish the following.

A. Add the new mail group IVM MESSAGES to your system. Minimally, the IVM Coordinator and IRM support specialist should be added as members to this group.

B. Update the HL7 SEGMENT NAME (#771.3) and the HL7 DHCP APPLICATION PARAMETER (#771) files in the HL7 package.

C. Adds entries to the MEANS TEST CHANGES TYPE (#408.42) file.

D. Add an entry to the IB ACTION STATUS (#350.21) file.

E. Install all required protocols and list templates.

F. Update the new fields, SOURCE OF INCOME TEST (#.23) to "VAMC" and PRIMARY INCOME TEST FOR YEAR? (#2) to "YES" for all entries in the ANNUAL MEANS TEST (#408.31) file. This is the longest portion of the installation. We estimate that up to 4000 Means Tests may be updated in one minute.

G. Send a notice of the installation to the IVM Center.

H. Load the installation date into the IVM SITE PARAMETER (#301.9) file.

- ❑ 10. The cross-reference routines for the INTEGRATED BILLING ACTION (#350) and ANNUAL MEANS TEST (#408.31) files are recompiled during the installation. If necessary, use DIKZ to recompile the cross-reference routines for these files on all CPUs.

- ❑ 11. You may delete the IVMIN\*, IVMON\*, and IVM20\* routines from your system.

- ☐ 12. Move all of the routines exported in this package, except those listed in step 11 which may be deleted, to all systems.
- ☐ 13. Rebuild routine map sets.

It is strongly recommended that the following routines be added to the routine map set on the volume set that they will be primarily running on.

IVML\*                      IVMR\*                      IVMU\*

- ☐ 14. You may bring users back on-line at this point.
- ☐ 15. The IVM BACKGROUND JOB option should be queued to run each evening during non-peak hours. If this option is not scheduled to run, please use the Schedule/Unschedule Options option on the Task Manager Menu to schedule this task at this time. Please be sure that this option has not been scheduled to run twice!
- ☐ 16. Please note that IVM V. 2.0 contains on-line options to be assigned to your users. The IVM Upload Menu is locked with the IVM UPLOAD key, and the IVM System Manager's Menu is locked with the IVM SYS key. You will need to assign these security keys to your users.



# Routine List

>D ^%RD

List all routines ? <Yes>  
Output Device ? < 0 >

DSM Routine Directory 21-OCT-1994 21:07  
[TRF,FEY]

DGMTA	DGMTAUD	DGMTAUD1	DGMTCOU1	DGMTDD	DGMTDD2	DGMTDEL	DGMTE
DGMTEO	DGMT01	DGMT0FA1	DGMTOPYT	DGMTOREQ	DGMTTP4	DGMTSCC	DGMTU
DGMTU11	DGMTU2	DGMTU21	DGMTU22	DGMTU23	DGMTU3	DGMTUB	DGMTV
DGPTUTL1	DGRPU	IBAERR1	IBAMTED	IBAMTED1	IBAMTEDU	IBAMTV	IBAMTV1
IBAMTV2	IBAMTV3	IBAMTV31	IBAMTV32	IBAMTV4	IBAUTL5	IBECEA1	IBOMTP1
IVM20E	IVM20P	IVM20P1	IVM20P2	IVM20P21	IVM20P22	IVM20P3	IVMIN001
IVMIN002	IVMIN003	IVMIN004	IVMIN005	IVMIN006	IVMIN007	IVMIN008	IVMIN009
IVMIN00A	IVMIN00B	IVMIN00C	IVMIN00D	IVMIN00E	IVMIN00F	IVMIN00G	IVMIN00H
IVMIN00I	IVMIN00J	IVMIN00K	IVMIN00L	IVMIN00M	IVMIN00N	IVMIN00O	IVMIN00P
IVMIN00Q	IVMIN00R	IVMIN00S	IVMIN00T	IVMIN00U	IVMIN00V	IVMIN00W	IVMIN00X
IVMIN00Y	IVMIN00Z	IVMIN010	IVMIN011	IVMIN012	IVMIN013	IVMIN014	IVMIN015
IVMIN016	IVMIN017	IVMIN018	IVMIN019	IVMIN01A	IVMIN01B	IVMIN01C	IVMIN01D
IVMINIS	IVMINIT	IVMINIT1	IVMINIT2	IVMINIT3	IVMINIT4	IVMINIT5	IVMLDEM
IVMLDEM1	IVMLDEM2	IVMLDEM3	IVMLDEM4	IVMLDEM5	IVMLDEM6	IVMLDEM7	IVMLDEMU
IVMLINS	IVMLINS1	IVMLINS2	IVMLINS3	IVMLINS4	IVMLINS5	IVMLSU	IVMLSU1
IVMLSU2	IVMLSU3	IVMNTEG	IVMON001	IVMON002	IVMON003	IVMONIT	IVMONIT1
IVMONIT2	IVMONIT3	IVMPINS	IVMPMTE	IVMPREC	IVMPREC1	IVMPREC2	IVMPREC3
IVMPREC4	IVMPREC5	IVMPREC6	IVMPREC7	IVMPREC8	IVMPREC9	IVMPRECA	IVMPTRN
IVMPTRN1	IVMPTRN2	IVMPTRN3	IVMPTRN4	IVMPTRN5	IVMPTRN6	IVMPXFR	IVMRBT
IVMRMCR	IVMRMCR1	IVMRNQ	IVMRNQ1	IVMRTSR	IVMRTSR1	IVMRUTL	IVMUCHK
IVMUCHK1	IVMUCHK2	IVMUCHK3	IVMUCHK4	IVMUCHK5	IVMUFNC	IVMUFNC1	IVMUFNC2
IVMUFNC3	IVMUFNC4	IVMUM1	IVMUM2	IVMUM3	IVMUM4	IVMUM5	IVMUM6
IVMUM7	IVMUM8	IVMUPAR	IVMUPUR	IVMUTQ	VAFHLFNC	VAFHLZDP	VAFHLZGD
VAFHLZIR	VAFHLZMT						

186 routines

# Sample Installation

```
>D ^IVMINIT
```

```
This version (#2.0) of 'IVMINIT' was created on 21-OCT-1994
      (at ALBANY ISC VAX DEVELOPMENT, by VA FileMan V.20.0)
```

```
I HAVE TO RUN AN ENVIRONMENT CHECK ROUTINE.
```

```
Initialization Started: JUN 24, 1994@09:16:51
```

```
      Select one of the following:
```

```
          1      PRODUCTION
          0      TEST
```

```
Enter type of account you are installing in: 1  PRODUCTION
I AM GOING TO SET UP THE FOLLOWING FILES:
```

```
      301.5      IVM PATIENT
```

```
Note:  You already have the 'IVM PATIENT' File.
```

```
      301.6      IVM TRANSMISSION LOG
```

```
Note:  You already have the 'IVM TRANSMISSION LOG' File.
```

```
      301.61     IVM BILLING TRANSMISSION
```

```
      301.9      IVM SITE PARAMETER
```

```
Note:  You already have the 'IVM SITE PARAMETER' File.
```

```
      301.91     IVM REASONS FOR NOT UPLOADING INSURANCE  (including data)
```

```
I will MERGE your data with mine.
```

```
      301.92     IVM DEMOGRAPHIC UPLOAD FIELDS  (including data)
```

```
I will MERGE your data with mine.
```

```
      301.93     IVM CASE CLOSURE REASON  (including data)
```

```
I will MERGE your data with mine.
```

```
      350        INTEGRATED BILLING ACTION  (Partial Definition)
```

```
Note:  You already have the 'INTEGRATED BILLING ACTION' File.
```

```
      408.13     INCOME PERSON  (Partial Definition)
```

```
Note:  You already have the 'INCOME PERSON' File.
```

```
      408.31     ANNUAL MEANS TEST  (Partial Definition)
```

```
Note:  You already have the 'ANNUAL MEANS TEST' File.
```

```
      408.34     SOURCE OF INCOME TEST  (including data)
```

```
I will MERGE your data with mine.
```

```
      408.41     MEANS TEST CHANGES  (Partial Definition)
```

```
Note:  You already have the 'MEANS TEST CHANGES' File.
```

```

SHALL I WRITE OVER FILE SECURITY CODES? NO// (NO)
NOTE: This package also contains INPUT TEMPLATES
      SHALL I WRITE OVER EXISTING INPUT TEMPLATES OF THE SAME NAME? YES//
      (YES)
NOTE: This package also contains SECURITY KEYS
      SHALL I WRITE OVER EXISTING SECURITY KEYS OF THE SAME NAME? YES//
      (YES)
NOTE: This package also contains OPTIONS
      SHALL I WRITE OVER EXISTING OPTIONS OF THE SAME NAME? YES// (YES)

ARE YOU SURE EVERYTHING'S OK? NO// Y (YES)

...HMMM, LET ME THINK ABOUT THAT A
MOMENT.....
.....

Compiling Cross-Reference routine.....

...HMMM, LET ME THINK ABOUT THAT A MOMENT...

IBXA1 routine filed
IBXA2 routine filed
IBXA routine filed

Compiling Cross-Reference routine.....

...HMMM, LET ME PUT YOU ON 'HOLD' FOR A SECOND...

DGMTXX31 routine filed
DGMTXX32 routine filed
DGMTXX3 routine filed.....
'IB MT ON HOLD MENU' Option Filed
'IB MT REV PEND CHARGES' Option Filed
'IVM BACKGROUND JOB' Option Filed
'IVM MAIN MENU' Option Filed
'IVM OUTPUT BILL TRANS' Option Filed
'IVM OUTPUT CASE INQ' Option Filed
'IVM OUTPUT MENU' Option Filed
'IVM OUTPUT MT COMPARISON' Option Filed
'IVM SYS MGR MENU' Option Filed
'IVM SYS PAR ENTER/EDIT' Option Filed
'IVM SYS PURGE TRANSMISSIONS' Option Filed
'IVM SYS TRANSMISSION REPORT' Option Filed
'IVM UPLOAD DEM' Option Filed
'IVM UPLOAD INS' Option Filed
'IVM UPLOAD MENU' Option Filed
'IVM UPLOAD SSN' Option Filed...
NO SECURITY-CODE PROTECTION HAS BEEN MADE

>>> Adding IVM MESSAGES mailgroup for sending results of data transmissions...

>>> Adding 'Z' segments to HL7 SEGMENT NAME file (#771.3)...
>> ZIO (VA Patient Care Statistics) segment added
>> ZIR (VA Specific Income Information) segment added

>>> Updating HL7 DHCP APPLICATION file entry for IVM...

>>> Adding new entries in the MEANS TEST CHANGES TYPE (#408.42) file...

>>> Adding a new status in the IB ACTION STATUS (#350.21) file...

```

This version of 'IVMONIT' was created on 21-OCT-1994  
(at ALBANY ISC VAX DEVELOPMENT, by OE/RR V.2.5)

# PROTOCOL INSTALLATION

```
...OK, this may take a while, hold on please.....
'IBAMTV REV CANC CHARGE' Protocol Filed
  IBAMTV REV CANC CHARGE added as item to IBAMTV REV IND CHARGES.
'IBAMTV REV IND CHARGES' Protocol Filed
'IBAMTV REV PASS CHARGE' Protocol Filed
  IBAMTV REV PASS CHARGE added as item to IBAMTV REV IND CHARGES.
'IBAMTV REV PATIENT' Protocol Filed
'IBAMTV SEL PATIENT' Protocol Filed
  IBAMTV SEL PATIENT added as item to IBAMTV REV PATIENT.
'IVM INSURANCE EVENT' Protocol Filed
  IVM INSURANCE EVENT added as item to IBCN NEW INSURANCE EVENTS.
'IVM MEANS TEST EVENT' Protocol Filed
'IVMLD DELETE FIELDS' Protocol Filed
'IVMLD DEMO UPLOAD' Protocol Filed
  IVMLD SELECT UPLOADABLE added as item to IVMLD DEMO UPLOAD.
  IVMLD SELECT NON-UPLOADABLE added as item to IVMLD DEMO UPLOAD.
  IVMLD SELECT HELP added as item to IVMLD DEMO UPLOAD.
'IVMLD NON-UPLOADABLE FIELDS' Protocol Filed
  IVMLD DELETE FIELDS added as item to IVMLD NON-UPLOADABLE FIELDS.
'IVMLD SELECT HELP' Protocol Filed
'IVMLD SELECT NON-UPLOADABLE' Protocol Filed
'IVMLD SELECT UPLOADABLE' Protocol Filed
'IVMLD UPLOAD FIELDS' Protocol Filed
'IVMLD UPLOADABLE DEMO' Protocol Filed
  IVMLD UPLOAD FIELDS added as item to IVMLD UPLOADABLE DEMO.
  IVMLD DELETE FIELDS added as item to IVMLD UPLOADABLE DEMO.
'IVMLI DISPLAY ENTRY' Protocol Filed
'IVMLI INSURANCE UPLOAD' Protocol Filed
  IVMLI DISPLAY ENTRY added as item to IVMLI INSURANCE UPLOAD.
  IVMLI SELECT HELP added as item to IVMLI INSURANCE UPLOAD.
'IVMLI SELECT HELP' Protocol Filed
'IVMLS PURGE SSN' Protocol Filed
'IVMLS SSN UPLOAD' Protocol Filed
  IVMLS PURGE SSN added as item to IVMLS SSN UPLOAD.
  IVMLS UPLOAD SSN added as item to IVMLS SSN UPLOAD.
'IVMLS UPLOAD SSN' Protocol Filed
OK, Protocol Installation is Complete.
```

```
>>> Installing List Templates...
'IVM DEMOGRAPHIC' List Template...Filed.
'IVM DEMOGRAPHIC NON-UPLOADABLE' List Template...Filed.
'IVM DEMOGRAPHIC UPLOADABLE' List Template...Filed.
'IB MT REVIEW INDIV CHARGES' List Template...Filed.
'IB MT REVIEW PATIENT' List Template...Filed.
'IVM INSURANCE UPLOAD' List Template...Filed.
'IVM SSN UPDATE' List Template...Filed.
```

```
>>> Rebuilding ^XUTL("XQORM" for protocol 'IBAMTV REV PATIENT' ...
>>> Rebuilding ^XUTL("XQORM" for protocol 'IBAMTV REV IND CHARGES' ...
```

```
>>> Initializing new ANNUAL MEANS TEST file (#408.31) fields for
existing entries as follows:
    SOURCE OF INCOME TEST (#.23) = VAMC (value = 1)
    PRIMARY INCOME TEST FOR YEAR? (#2)= YES (value = 1)
.....

>>> Sending a 'completed installation' notice to the IVM Center...

>>> Initialization Complete at JUN 29, 1994@21:01:02
    Elapse time for initialization was: 0 Hours,  8 Minutes,  47 Seconds

The installation of Income Verification Match Version 2.0 has completed.

Please be sure that the IVM Nightly Job (option IVM BACKGROUND JOB) is
scheduled to run.  If it is not, it should be scheduled to run early each
morning.

Be sure that it is not scheduled twice!!

Remember to re-compile the cross reference routines for the INTEGRATED
BILLING ACTION (#350) and ANNUAL MEANS TEST (#408.31) files, using DIKZ,
on all of your systems.
>
```

## Resource Requirements

The installation of IVM V. 2.0 requires a very small amount of additional computer resources. Approximately 500K bytes of additional disk capacity is required to install this package. Global growth within IVM should not change with this version. Additional growth in PIMS and IB will depend upon the volume of verified Means Tests returned to the facility from the IVM Center. Our experience with our test sites indicates that this additional growth will be minimal. The mail traffic emanating from your site should not increase significantly with this version of IVM. On the average, a maximum of two MailMan messages is expected to be sent from your facility each evening, with each message containing, at a maximum, 2500 lines. The net increase in total network traffic will depend upon the volume of transmissions originating from the IVM Center. Again, our experience with our test sites has indicated that this increase will not be significant.